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Please add new claim 29 as follows:

29. (New) The ink cartridge of claim 16, wherein the ink storage chambers storing the deep cyan ink and light cyan ink are adjacent and the ink storage chambers storing the deep magenta ink and the light magenta ink are adjacent.

### REMARKS

This Amendment is in response to the outstanding Office Action, dated April 30, 2002 in which the Examiner indicated that claims 16-18, 20 and 24-28 were rejected. Applicant notes with appreciation the Examiner's indication that claims 19 and 21-23 would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims.

Attached hereto is a mark-up version of the changes made to the claims by the current amendment. The attached page is entitled "**VERSION WITH MARKINGS TO SHOW CHANGES**".

### Objection To The Specification

The Examiner has objected to specification of the present application in that the Examiner contends that the "Abstract" portion of the specification is not in proper form. Applicant has amended the specification as set forth in the substitute abstract page attached hereto. Applicant submits that the abstract is now in proper form and respectfully requests that the Examiner withdraw the objection.

### Rejection Under 35 U.S.C. § 112

The Examiner has rejected claims 16-23 under 35 U.S.C. § 112, 2nd paragraph.

Specifically, with respect to claims 16 and 22, the Examiner contends that the claim is indefinite because "each storage chamber can only store ink of one color." Applicant has amended claims 16 and 22 to more clearly define that the ink cartridge comprises:

plurality of ink storage chambers. . . a first chamber of said ink storage chambers storing a light cyan ink, a second chamber of said ink storage chambers storing a deep cyan ink, a third chamber of said ink storage chambers storing a light magenta ink, a fourth chamber of said ink storage chambers storing a deep magenta ink and a fifth chamber of said ink storage chambers storing a yellow ink.

Applicant submits that such amendment clearly defines that each chamber of the ink cartridge stores a particular colored ink. Accordingly, Applicant respectfully requests that the Examiner withdraw the rejection.

Regarding claim 19, Applicant has amended the claim to more clearly point out that the partitioning walls are formed such that the thickness of the walls gradually increases from a first end of the wall to the second end, whereby, the second end is thicker than the first end.

Applicant submits that such amendment obviates the rejection, and respectfully requests that the Examiner withdraw the rejection.

Rejection Under 35 U.S.C. § 102(b)

The Examiner rejected claim 16-18, 20, and 24-28 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,630,076 to Yoshimura. The Examiner contends that Yoshimura discloses:

an ink cartridge (6) which is used for an ink-jet recording apparatus, comprising: a plurality of ink storage chambers (tanks of 6) storing cyan ink (C, Fig. 4), magenta ink (M, Fig. 4), and yellow ink (Y, Fig. 4); and wherein the ink storage chambers are accommodated integrally in the ink cartridge (Fig. 4).

Applicant respectfully traverses this rejection.

Yoshimura describes an ink cartridge having for ink reservoirs containing three colored inks and a fourth and fifth reservoir containing a black and white ink, respectively. (See Yoshimura, col. 3, lines 17-20). Yoshimura is specifically directed to using the white ink to avoid the need to “thin” the colored ink droplets to produce light colors. (See id. at col. 3, lines 45-60). Thus, in Yoshimura neither the white nor the black inks can be considered “colored ink” as that term is used in the present application.

In contrast, the present application claims an ink cartridge having five chambers that store five colored inks. Specifically, unlike Yoshimura, claims 16 and 22 define that the ink chambers store light cyan, deep cyan, light magenta, deep magenta, and yellow inks. Applicant notes that the claimed five color technology, which adds light cyan and light magenta inks to the typical three color configuration of Yoshimura, is a component of Seiko Epson’s improved photo quality printing technology. By including light cyan and light magenta, a printer can create ink dots that are less dense than ordinary inks and avoids the need to use white ink droplets to bleed darker colors into light colors. This permits a wider range of colors to be printed at both increased quality and speed. This technology is being commercialized in Seiko Epson’s products, which have enjoyed commercial success.

Thus, Yoshimura neither discloses a fourth and fifth chamber storing a color ink nor the particular colors defined by claims 16 and 22. Moreover, as described in the specification at page 17, lines 22-26, this arrangement “accomplish[es] a further improvement in the quality of color prints produced by an ink-jet printer” by providing a recording head “that is capable of independently ejecting ink of five colors including light cyan, deep cyan, light magenta, deep magenta, and yellow.” Further, new claim 29 defines a specific arrangement of the colors in the ink cartridge that is not disclosed or suggested by Yoshimura.

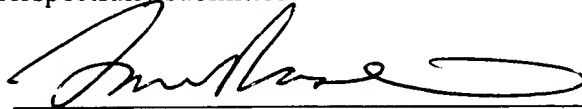
The Examiner further contends that even though Yoshimura does not disclose that the ink storage chamber are for storing the colored ink the claims cannot distinguish over the reference in terms of function. However, contrary to the Examiner's assertion, claims 16 and 22 define that each of the ink storage chambers stores a colored ink, rather than merely being "for storing" ink. Thus, the claims do distinguish over Yoshimura on structural terms rather than function terms. As such, Yoshimura does not anticipate claims 16, 22, new claim 29, and the claims depending therefrom, and Applicant respectfully requests withdrawal of the rejection.

Similarly, independent claims 24 and 27, as amended, are not anticipated by Yoshimura. Claim 24 has been amended to include the limitations of claims 25 and 26, which are not disclosed in Yoshimura. Specifically, Yoshimura fails to disclose that "the yellow ink is stored in the ink storage chamber located at the most end side of the ink storage chambers." Regarding, amended claim 27, which was amended to include the limitations of claim 28, Yoshimura fails to disclose that "the ink storage chambers are arranged in an order of storing light cyan ink, deep cyan ink, light magenta ink, deep magenta ink and yellow ink in a horizontal direction." Accordingly, claims 24 and 27, as amended, are now in condition for allowance.

Applicant has made a diligent effort to place the Application in condition for allowance and respectfully submit that claims 16-29, in light of the amendments and arguments set forth above, are in condition for immediate allowance. Consequently, if the Examiner cannot issue immediate Notice of Allowance, the Examiner is respectfully requested to contact the undersigned attorney to discuss the outstanding issues.

Any new and additional fees or charges beyond which are stated in said transmittal letter filed concurrently herewith should be charged to Deposit Account No. 19-4709 as necessary.

Respectfully submitted

A handwritten signature in black ink, appearing to read 'Lawrence Rosenthal', written over a horizontal line.

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VERSION WITH MARKINGS TO SHOW CHANGES

16. (Amended) An ink cartridge which is used for an ink-jet recording apparatus, comprising:

a plurality of ink storage chambers, [each] wherein a first chamber of said ink storage chambers storing a light cyan ink, a second chamber of said ink storage chambers storing a deep cyan ink, a third chamber of said ink storage chambers storing a light magenta ink, a fourth chamber of said ink storage chambers storing a deep magenta ink and a fifth chamber of said ink storage chambers storing a yellow ink; and

wherein the ink storage chambers are accommodated integrally in the ink cartridge.

19. (Amended) The ink cartridge according to claim 16, wherein the ink storage chambers are partitioned by partitioning walls and have supply ports constructed to supply ink, the partitioning walls having a first end and a second end, the second end being nearer the ink supply ports of each of said ink storage chambers, [and] the partitioning walls [are] being formed so that a thickness of the partitioning walls gradually increases from the first end to the second end, [along the direction for ink supply ports of each ink storage chambers] whereby the second end is thicker than the first end.

22. (Amended) An ink cartridge mounted on an ink-jet recording apparatus and storing ink of a plurality of colors to be supplied to the ink-jet recording apparatus which has an ink-jet recording head for ejecting the ink and a plurality of ink supply needles for supplying the ink to the recording head, adjacent ones of said ink supply needles being arranged to have height difference therebetween, the ink cartridge comprising:

a plurality of ink storage chambers, [each] wherein a first chamber of said ink storage chambers storing a light cyan ink, a second chamber of said ink storage chambers storing a deep cyan ink, a third chamber of said ink storage chambers storing a light magenta ink, a fourth chamber of said ink storage chambers storing a deep magenta ink and a fifth chamber of said ink storage chambers storing a yellow ink, the ink storage chambers being accommodated integrally in the ink cartridge; and

ink supply ports engaging with the ink supply needles so as to supply the ink stored in the ink storage chambers to the ink supply needles.

24. (Amended) An ink cartridge which is used for an ink-jet recording apparatus, comprising:

a plurality of ink storage chambers storing ink of at least five [difference] different colors, the ink storage chambers being accommodated integrally in the ink cartridge;

wherein each ink storage chamber has an ink supply port, and all ink supply ports are aligned on one straight line; and

wherein the yellow ink is stored in the ink storage chamber located at the most end side of the ink storage chambers.

27. (Amended) An ink cartridge which is used for an ink-jet recording apparatus, comprising:

a plurality of ink storage chambers storing ink of at least five different colors, the ink storage chambers being accommodated integrally in the ink cartridge;

wherein different colors of the five different colors are adjacent to each other; and

wherein the ink storage chambers are arranged in an order of storing light cyan ink, deep cyan ink, light magenta ink, deep magenta ink and yellow ink in a horizontal direction.

29. (New) The ink cartridge of claim 16, wherein the ink storage chambers storing the deep cyan ink and light cyan ink are adjacent and the ink storage chambers storing the deep magenta ink and the light magenta ink are adjacent.



Please replace the current Abstract with the following:

**ABSTRACT**

An ink cartridge which is used with an ink-jet recording apparatus includes a plurality of ink storage chambers. A first of the storage chambers can store light cyan ink, a second can store deep cyan ink, a third can store light magenta ink, a fourth can store deep magenta ink, and a fifth can store yellow ink. The ink storage chambers can all be accommodated integrally in a single ink cartridge. In one embodiment of the invention, the ink storage chambers are partitioned by partitioning walls which gradually increase in thickness as they approach the portion of the ink chambers having supply ports therein.